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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/724,095

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Udo Miletzki

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28204

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EXAMINER

VO, HUYEN X

ART UNIT

PAPER NUMBER

2626

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/724,095

Applicant(s)

MILETZKI, UDO

Examiner

Huyen X. Vo

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection in view of Miyake et al. (US 5754872) necessitated by claim amendment.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-7, and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimomura (US 6115707) in view of Bashomatsu et al. (US 5887072), and further in view of Miyake et al. (US 5754872).

4. Regarding claims 1 and 10, Shimomura discloses a method and system for reading addresses in more than one language, comprising the steps of:

reading address characters of said address using OCR means (*inherently included in the system of figure 1*), said OCR means being directed to said language of said characters (*Japanese language*);

depicting results of said reading in language-neutral transliteration form (*result of OCR scanning shown in figure 4 is forwarded to Word Recognition 101 in figure 1*);

determining and classifying address elements according to syntax rules related to said determined language (*address rule 104 in figure 1*), said address elements comprising said address characters (*address in figure 4 includes address characters*); and

verifying if each of said elements substantially match a database entry (*matching against addresses stored in database 105 in figure 1*), said match comprising a defined degree of similarity (*col. 6, lines 45-53*).

Shimomura fails to specifically disclose the step of reading address in more than one language and a database comprising entries of acceptable read address elements with different, language dependent, transliteration variations; and processing an image of an address bearing surface to determine a language in which the address is written. However, Bashomatsu et al. teach the step of reading address in more than one language (*system in figure 1*), and a database comprising entries of acceptable read address elements with different, language dependent, transliteration variations (*address and postal code database 5 in figure 1 and referring to col. 5, line 52 to col. 6, line 67, city "TOKYO" is recognized in both Japanese and English languages*).

Since Shimomura and Bashomatsu et al. are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Shimomura by incorporating the teaching of

Bashomatsu et al. in order to improve recognition accuracy of reading addresses written/printed in multiple languages.

The modified Shimomura fails to specifically disclose the step of processing an image of an address bearing surface to determine a language in which the address is written. However, Miyake et al. further teach the step of processing an image of an address bearing surface to determine a language in which the address is written (*col. 7, lines 26-55, the system first determines the kind of language captured by the image reader by referring to the language kind specifying dictionary; the system then recognizes character images captured by the image reader using a language-specific dictionary determined from the step of determining the kind of language*).

Since the modified Shimomura and Miyake et al. are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to further modify Shimomura by incorporating the teaching of Miyake et al. in order to improve character recognition accuracy by using a language-specific dictionary.

5. Regarding claims 2 and 11, Shimomura further discloses the method and system according to claims 1 and 10, respectively, further comprising the steps of: prior to said step of reading address characters, recording an image of an address bearing surface (*figure 4 is the result of scanning*); determining in said image regions comprising said address blocks (*figure 4*), said step of determining in said image being performed by means of language related layout models, said models being generated from learning

Art Unit: 2626

samples (*col. 7, lines 24-43*); and pictorially segmenting said address blocks so as to produce segmented image data (*col. 7, lines 24-43, by cutting out individual characters*).

6. Regarding claims 3 and 12, Shimomura fails to specifically disclose the steps of feeding said segmented image data into a language decision unit; determining a corresponding language by comparing said blocks with language-typical feature sets, whereby said language has a highest comparison rate; and assigning said language as said anticipated language. However, Bashomatsu et al. teach the steps of feeding said segmented image data into a language decision unit (*the operation of figure 1*); determining a corresponding language by comparing said blocks with language-typical feature sets, whereby said language has a highest comparison rate (*the operation of figures 3A-B determines English or Japanese*); and assigning said language as said anticipated language (*the operation of figures 3A-B determines English or Japanese*).

Since Shimomura and Bashomatsu et al. are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Shimomura by incorporating the teaching of Bashomatsu et al. in order to improve recognition accuracy of reading addresses written/printed in multiple languages.

7. Regarding claim 4, Shimomura fails to specifically disclose the method according to claim 3, further comprising the steps of: repeating said step of determining a

Art Unit: 2626

corresponding language and assigning said language if said step of reading address characters fails with a previously assigned language. However, Bashomatsu et al. further teach the step of repeating said step of determining a corresponding language and assigning said language if said step of reading address characters fails with a previously assigned language (*the operation of figures 3A-B, if the system current operates in Japanese and the next address is determined to be in English, the system switch its operation to English*).

Since Shimomura and Bashomatsu et al. are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Shimomura by incorporating the teaching of Bashomatsu et al. in order to improve recognition accuracy of reading addresses written/printed in multiple languages.

8. Regarding claims 6-7, Shimomura fails to specifically disclose the method according to claim 1, further comprising the steps of: repeating said steps of reading address characters, depicting results, determining and classifying address character elements with other languages than said anticipated language if said elements do not substantially correspond to database entries. However, Bashomatsu et al. further teach repeating said steps of reading address characters, depicting results, determining and classifying address character elements with other languages than said anticipated language if said elements do not substantially correspond to database entries (*the*

operation of figures 3A-B, if the system current operates in Japanese and the next address is determined to be in English, the system switch its operation to English).

Since Shimomura and Bashomatsu et al. are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Shimomura by incorporating the teaching of Bashomatsu et al. in order to improve recognition accuracy of reading addresses written/printed in multiple languages.

9. Regarding claim 13, Shimomura further discloses the system according to claim 12, further comprising a word recognition unit for reading parts of said address, said parts comprising words (*figure 1, elements 101-102*), said word recognition unit operable when reading results of said OCR unit are not verifiable, said word recognition unit comprising decision logic of each anticipated language, and said word recognition unit further comprising means for feeding results to said address interpretation unit (*the operation figure 1*).

10. Claims 5 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimomura (US 6115707) in view of Bashomatsu et al. (US 5887072), further in view of Miyake et al. (US 5754872), as applied to claim 1, and further in view of Scanlon (US 5850480).

11. Regarding claim 5, the modified Shimomura fails to specifically disclose the method according to claim 1, wherein if said step of reading address characters fails to resolve said address characters with said OCR means, reading identified words of said address in a word recognition unit, said word recognition unit comprising decision logic according to said anticipated language, and verifying results of said word recognition unit with said database. However, Scanlon further teaches that if said step of reading address characters fails to resolve said address characters with said OCR means, reading identified words of said address in a word recognition unit, said word recognition unit comprising decision logic according to said anticipated language, and verifying results of said word recognition unit with said database (*figures 2-4*).

Since the modified Shimomura and Scanlon are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to further modify Shimomura by incorporating the teaching of Scanlon in order to improve recognition accuracy of reading addresses.

12. Regarding claim 8, the modified Shimomura fails to specifically disclose the method according to claim 1, wherein if said element substantially but not completely matches a database entry, changing said element to completely match said database entry. However, Scanlon further teaches that if said element substantially but not completely matches a database entry, changing said element to completely match said database entry (*figures 2-4*).

Since the modified Shimomura and Scanlon are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to further modify Shimomura by incorporating the teaching of Scanlon in order to improve recognition accuracy of reading addresses.

13. Regarding claim 9, Shimomura further discloses the method according to claim 1, wherein at least one of said languages is non-Latin based (*Japanese*).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen X. Vo whose telephone number is 571-272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HXV

11/13/2006


RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER